Enterprise Asset Management (EAM) Program and Project Overview

Presentation for

City Council Infrastructure Committee
Item 11
July 22, 2015

Overview

1. The Infrastructure Problem
2. Asset Management – The EAM Program
3. The Software Solution - The EAM Project
   - SAP EAM Solution
   - Riva Modeling - Asset Management Planning Tool

How Big is the Problem?

Currently, there many disparate and outdated departmental systems and no effective approach for managing these assets citywide

Aging and deteriorating assets

Backlog of deferred maintenance and capital projects

How Big is the Problem?

The Multi-Year Capital Plan

$ in millions	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	Total
Total Needs	$632.1	$805.8	$733.9	$808.9	$892.4	$3,873.1
Funding	425.3	528.7	359.0	348.8	501.9	2,163.8
Gap	$206.7	$277.1	$374.9	$460.1	$390.5	$1,709.3

The bottom line…

We need a strategy to effectively manage our infrastructure assets

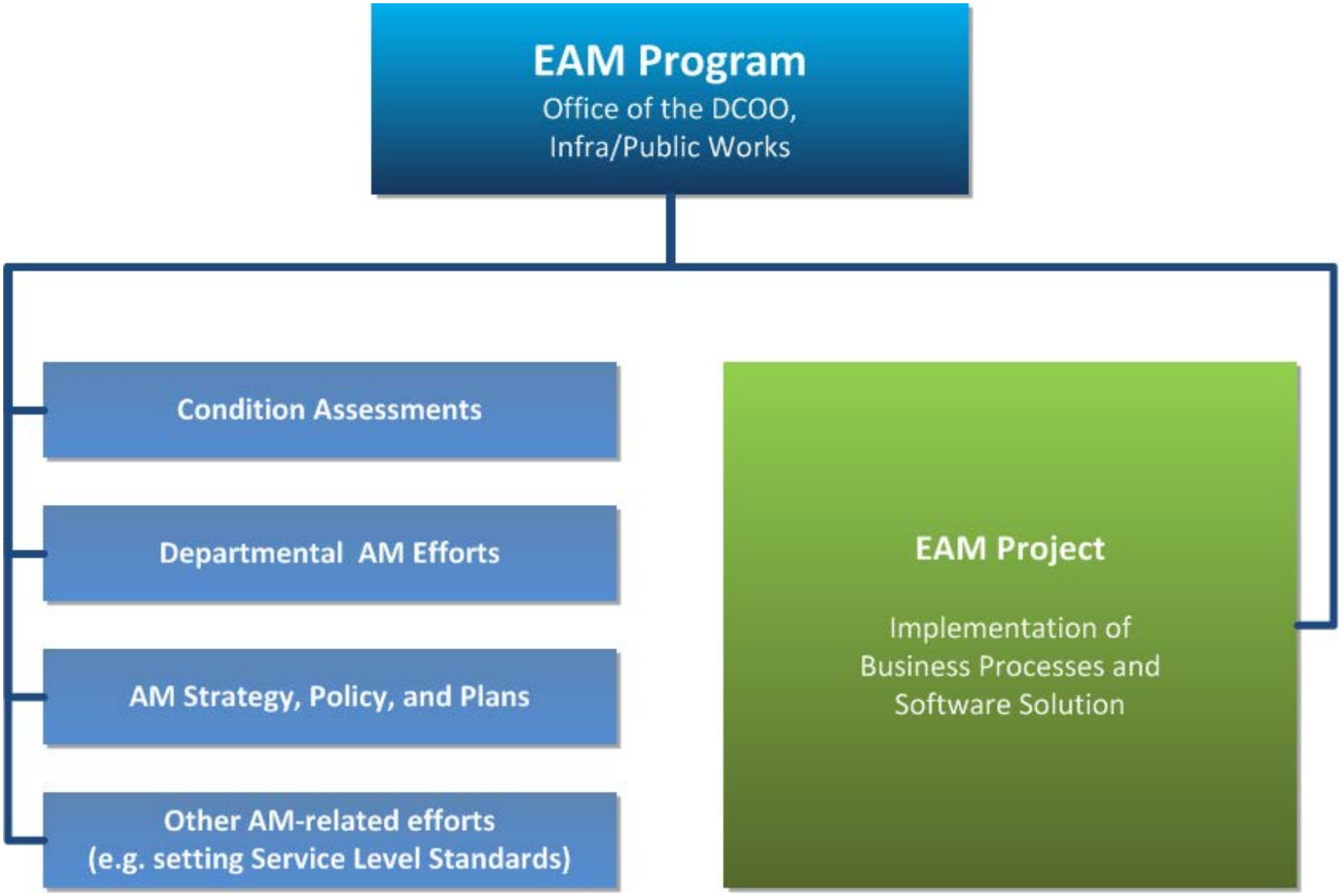
What is Asset Management?

A best practice for managing infrastructure capital assets to minimize the total cost of owning and operating them while delivering the desired service levels

What is Asset Management?

Provides a mechanism to answer critical questions:

- What is the condition of our assets?
- What is the required sustainable level of service?
- Which assets are critical to sustained operations?
- What are our best maintenance and capital investment strategies?
- What is our best long-term funding strategy?


EAM Program
Office of the DCOO,
Infra/Public Works
Condition Assessments
Departmental AM Efforts
AM Strategy, Policy, and Plans
Other AM-related efforts
(e.g. setting Service Level Standards)
EAM Project
Implementation of
Business Processes and
Software Solution

Why an Enterprise Asset Management (EAM) Solution/System?

A software tool is critical to implementing Asset Management, given the

- Large number of City assets
- Complex and significant amount of information that must be collected and analyzed
- Need to optimize the City's limited funds

EAM – An Integrated Enterprise Solution

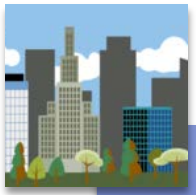
The City chose to implement the SAP EAM solution because it

- Enables participating departments to integrate with existing SAP applications in the City
- Leverages existing investments in SAP
- Meets the City's asset management capability needs

How are Other Governments and Utilities Managing Their Infrastructure Assets?

- Many large cities/organizations have implemented an EAM System
- Many city/organizations in the San Diego region have implemented/are implementing EAM Systems

US Cities/Organizations Using SAP EAM



Cities

- City of Phoenix, AZ
- City of San Antonio, TX
- City of San Luis Obispo, CA
- City of Tacoma, WA
- City of Toledo, OH
- City of Dallas, TX

Counties

- Clark County, NV
- County of Bernalillo, NM
- Collier County, FL
- Monroe County
- Erie County, NY
- Snohomish County, WA

Other Public Sector

- Port of San Diego
- Colorado DoT
- Commonwealth of Pennsylvania
- Penn DoT
- PA Turnpike
- North Carolina DoT
- CA Dept. Water Resources
- San Diego Metro Transit System
- Harris County Metro, TX

The EAM Project - A Citywide Strategic Initiative

Departments In Phase 1	Division
Public Utilities	Water Systems Operation
	Water Construction and Maintenance
	Wastewater Treatment and Disposal
	Wastewater Collection
	Customer Support Division
	Engineering and Program Management
Public Works	Engineering and Capital Projects
	Facilities
	Publishing Services
Transportation and Storm Water	Storm Water
	Streets
	Transportation Engineering and Operations
Information Technology	Wireless Technology

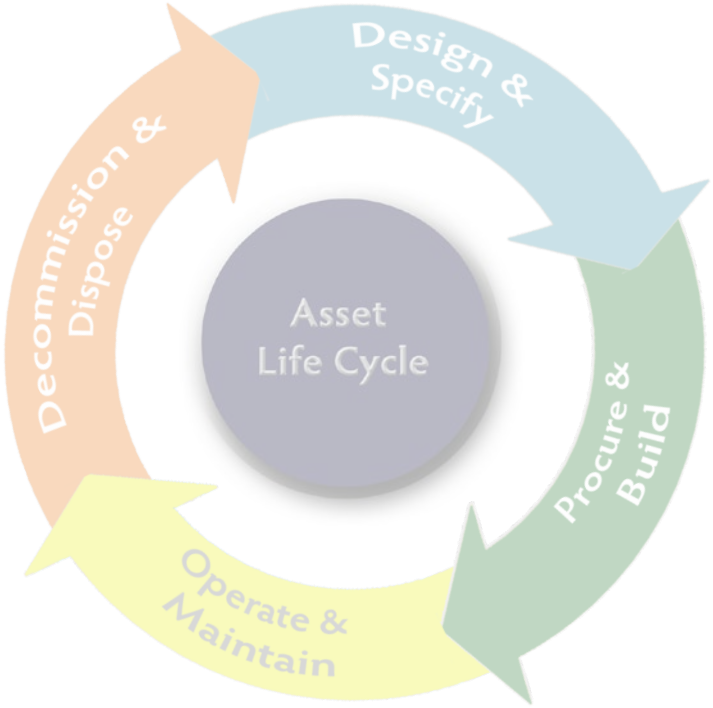
Consultant Support for EAM Project

- SAP consultants on board early
- Business Process Consultant
- Systems Integrator

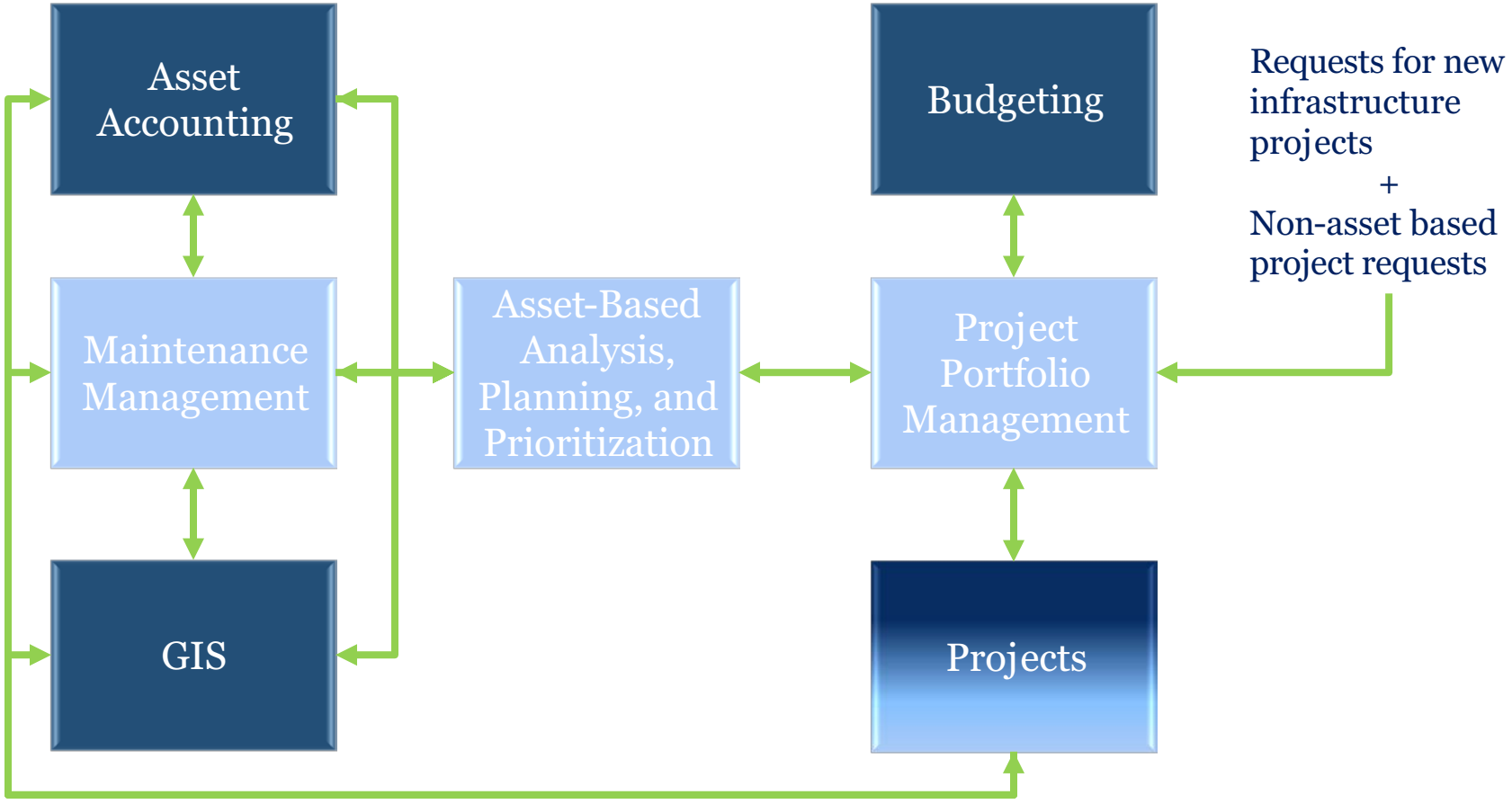
Project Pilots

- SAP 3D Visual Enterprise
- Riva Modeling

SAP Enterprise Asset Management

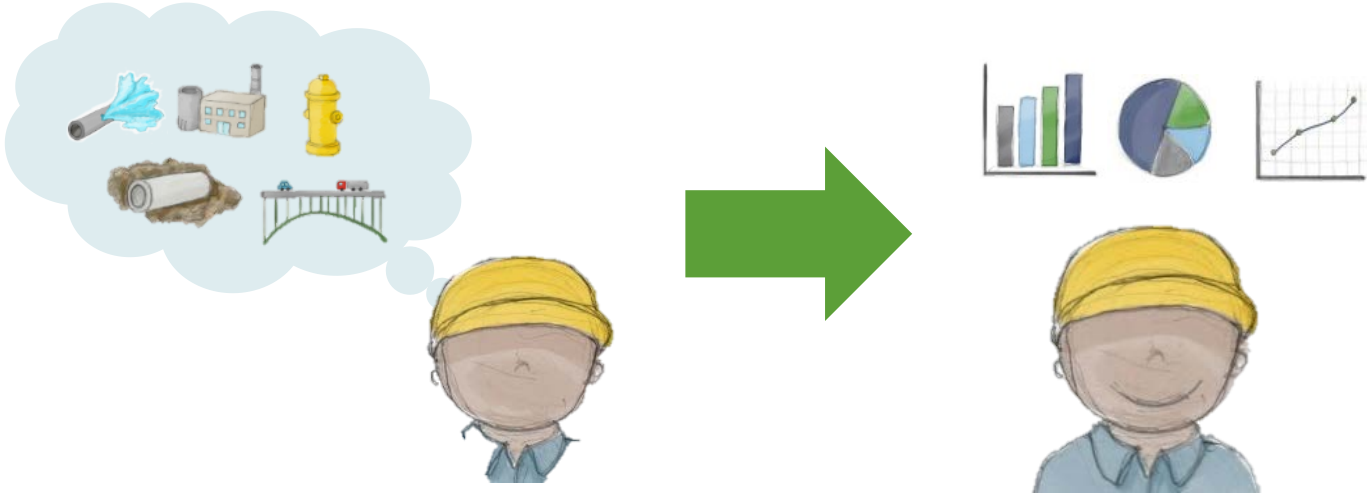


Asset-Based Infrastructure Planning



Asset Management Planning (AMP)

- Comprehensive and integrated software solution using a risk-based approach to support long-range infrastructure asset management planning, decision making and optimization activities



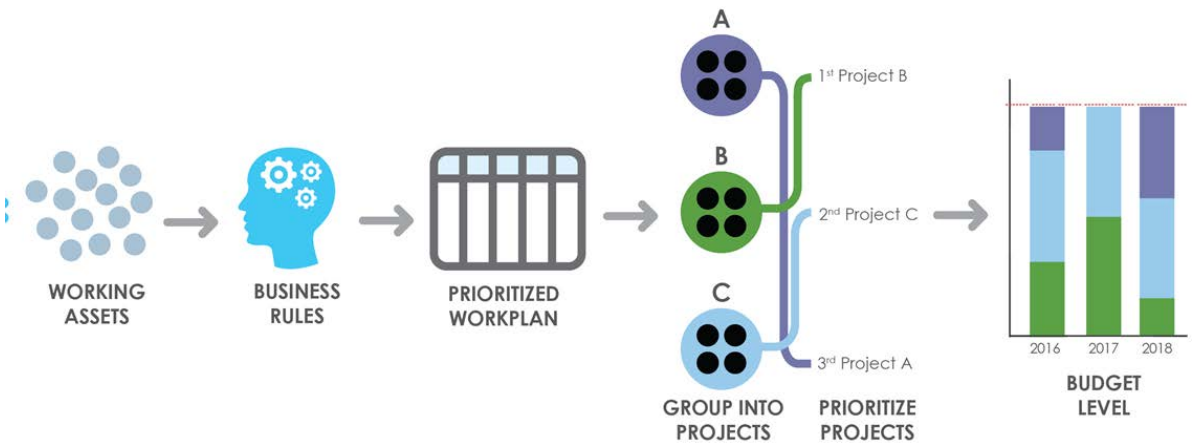
The Riva Core Solution:
Planning for Assets and Projects

The Solution:

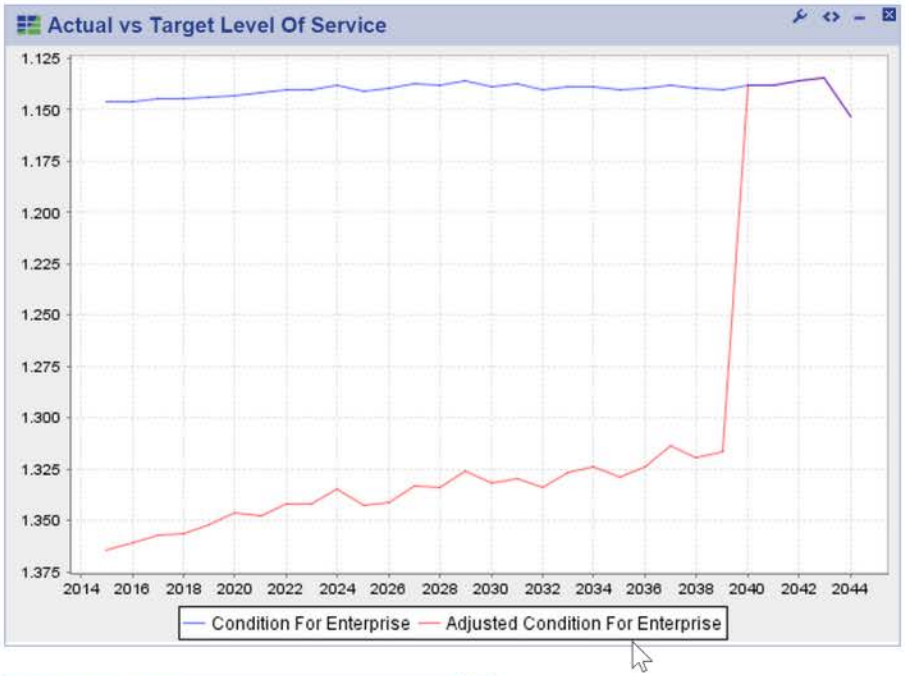
What's Managed:

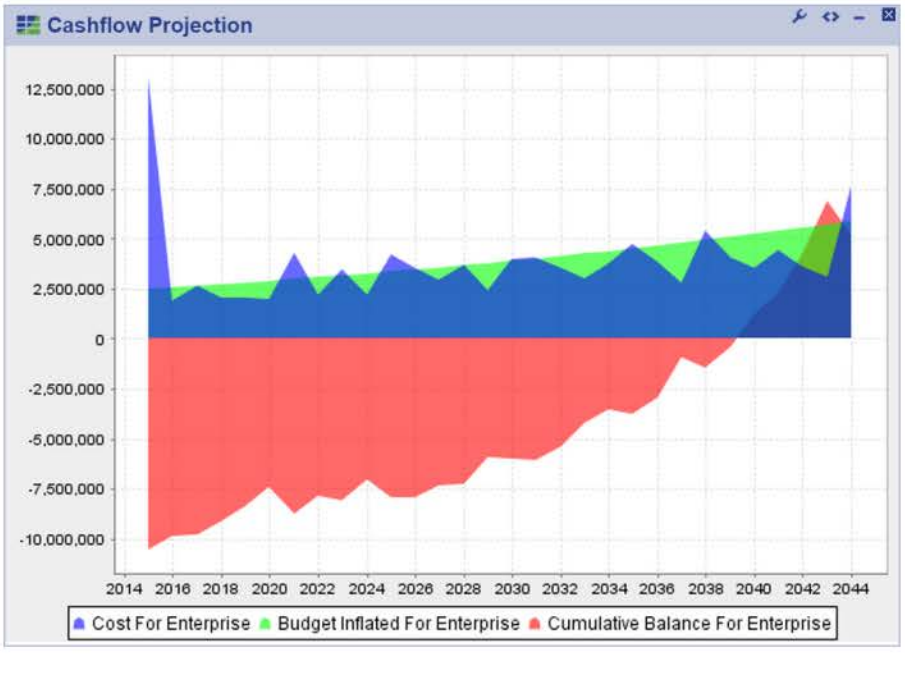
ASSETS **PROJECTS**

The Workflow:



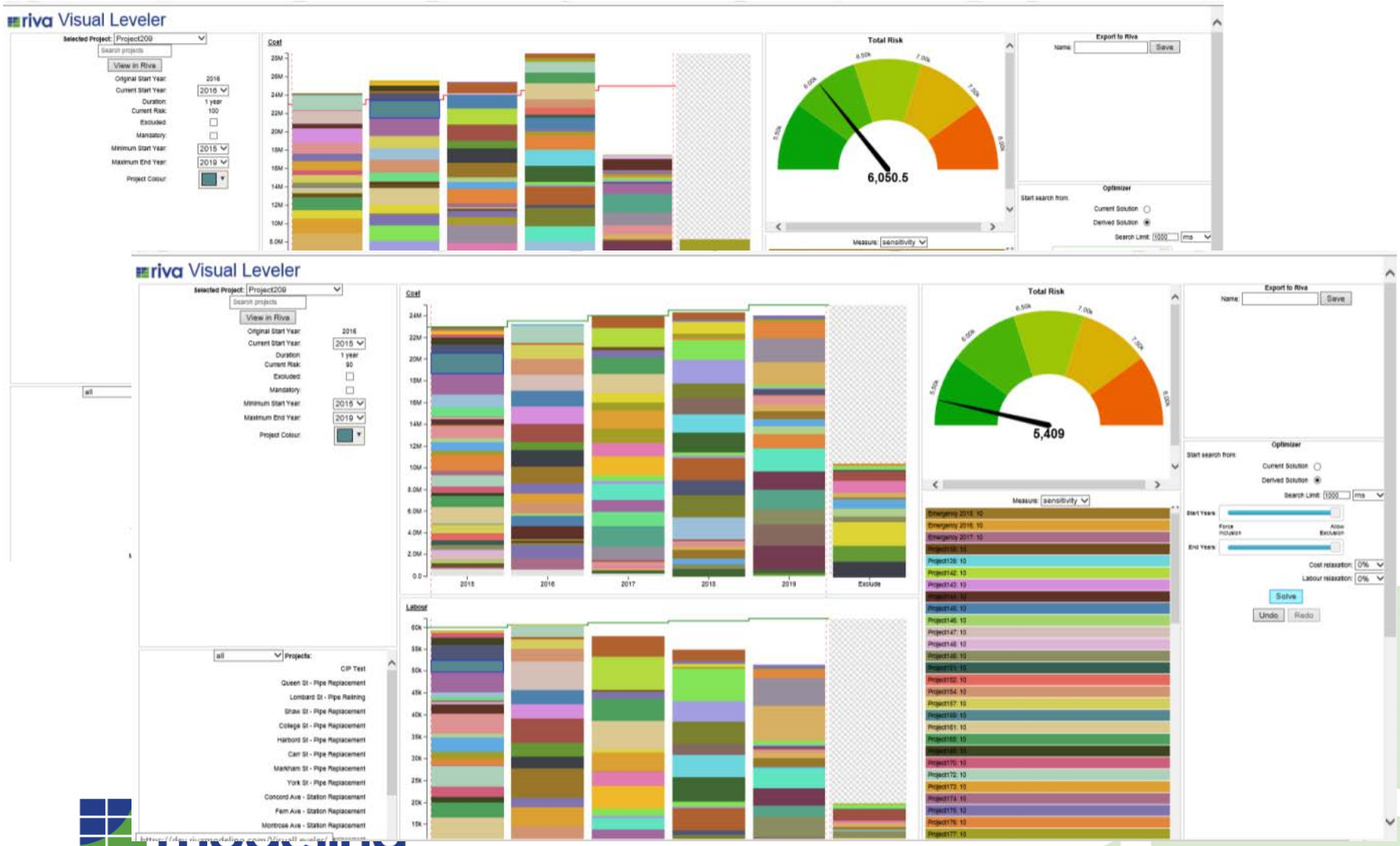
Planning Tools





Optimization

How can we best spend our limited funds to most effectively manage our infrastructure assets?



Questions?

End

The City's EAM Project

Phase 1 – Participating Departments	Phase 1 – Impacted Departments	Future Phases
• Department of Information Technology • Public Utilities • Public Works • Transportation & Storm Water	• Development Services • Financial Management • Office of the Comptroller • Purchasing & Contracting • Office of the Treasurer **Ongoing Coordination** • Open Data • GIS • CRM/311 and Code Compliance • Docs Management • Condition Assessments • DSD PTS Replacement	**Met with Staff** • Environmental Services • Fire-Rescue (Equipment) • Park & Recreation **Pending Meetings** • Library • Police • Public Works - Fleet Services • Real Estate Assets (Property Management)

Riva Sites by Industry

Public Sector

City of Burnaby
City of Brandon
City of Calgary
Halton Region
City of Ottawa
City of Abbotsford
Halifax Regional Municipality
City of Kitchener
City of Prince George
County of Simcoe
City of Toronto
City of Kamloops
County of Lambton
Region of Peel
York Region
Medicine Hat
Tauranga
Oakland County
DC Gov

Water

WSSC
Mei Netanya
Akron Water
Virginia Beach
Charleston Water System
HERA

Electric

ActewAGL
EWEB
Oakville Hydro

Gas

Enbridge Gas Distribution
HERA

Riva Sites by Geographic Region

Washington Suburban Sanitary Commission manages $15 billion worth of net assets with Riva

- Automated 30-year capital plan is always up to date
- Need for external consultants greatly reduced
- Flexible solution supports continuous improvement through configuration
- Oracle and Esri environments

riva modeling

City of Toronto, Parks, Forestry & Recreation uses Riva to plan and monitor capital projects for assets valued in excess of $5.5 billion

- Source inventory system for all assets
- Integration to GIS for spatial views and asset updates
- Automated budget fitting and transparent prioritization
- Up-to-the-minute project and expenditure tracking

City of Toronto, Facilities and Real Estate, uses Riva for Long-Range Planning of over 400 Buildings ($3B Net value)

- Consistency and improved data quality
- SAP PM & SAP RE integration linked Capital Planning and Operations
- Automated budget fitting and transparent prioritization
- One-click BCA report generation in minutes instead of weeks